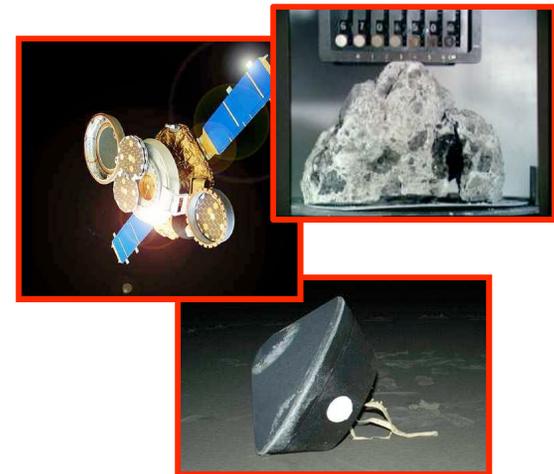


Curated materials from missions:

- Natural materials returned from extraterrestrial environments, e.g.
 - ✓ Apollo lunar samples
 - ✓ Stardust collectors
 - ✓ Genesis collectors
 - ? Hayabusa particles
- Space-exposed hardware, e.g.
 - ✓ Long Duration Exposure Facility (LDEF)
 - ✓ Genesis & Stardust sample return capsules





NASA Curation policy requirements (NPD7100.10E)

- A vigorous program of analysis, description, and research on extraterrestrial materials;
- Special allocation and management to ensure optimum benefits to sciences, technology, education, public information, and US interests;
- A representative sample stored in undisturbed condition for studies in the indefinite future.



Curation at NASA: who does what?

- SMD: Overall management, budget, long-range planning
- JSC Curatorial Facility (Carlton Allen, Curator):
 - Curation of all returned materials, past and future.
 - Documentation/preservation/preparation/distribution
 - Physical and environmental security of samples
 - Development of curation procedures



Current JSC curation facilities

- 5 collections (Apollo, Antarctic meteorites, stratospheric dust, Genesis, Stardust) (+ Hayabusa???)
- Each collection has specialized cleanroom (classes 10-1000)
- Scientific staff for helping plan curation for new missions





Mission Planning

Requirement 13:

- Proposals that include the return of extraterrestrial samples shall provide a Sample Curation Plan.

Distinct from Science Plan!

Describe (with Curator's help):

- Nature of samples expected
- How to prevent contamination/degradation
- Preliminary examination plan
- Environmental conditions needed for curation
- Procedures for documentation, subsampling, distribution

Requirements:

- Catalog produced by mission team within 6 months
- 75% of sample preserved for future



Mission Planning

Requirement 14:

- Proposals that include the return of extraterrestrial samples shall allocate funding for use of the JSC Curatorial Facility, including all aspects of curation.

Requirements:

- Detailed budget with **mission** funding to cover:
 - * Curation for at least 2 years after sample return
 - * All required laboratory modifications (which should be completed ~1 year prior to return)



Mission Planning

Non-US partners may get a fraction of any returned sample proportionate to their investment, however:

Requirement 15:

- Proposals that include the return of extraterrestrial samples shall specify the terms and conditions of selection of a sample fraction no greater than **25%** for transmission to the contributing country, if appropriate.



NASA Contact - Curation planning:

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On request, the Curator will provide a curatorial representative to assist the PI in developing a curation plan and an budget.

PIs are encouraged to include the curatorial representative as an Ex Officio member of the mission science team.



NASA Contact - Curation policy:

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